



# Alejandra Maciel Tiburcio

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**Gender:** Female **Date of birth:** 05/04/1999 **Nationality:** Mexican

## ABOUT ME

Renewable Energy Engineer from the Institute of Renewable Energies (IER-UNAM) with particular interest in wind energy, solar energy (photovoltaics and thermal) and energy efficiency.

## EDUCATION AND TRAINING

[ 06/08/2018 – 10/06/2022 ]

### Renewable Energy Engineer

**Universidad Nacional Autónoma de México** <https://www.unam.mx/>

**Address:** Av. Universidad 3004, Copilco Universidad, Coyoacán, 04510, Ciudad de México, Mexico

**Final grade:** 9.73 / 10

[ 08/2015 – 07/2018 ]

### Programming technician

**Colegio México**

**Address:** Belisario Domínguez 318, Col. Vista Mar, 96529, Coatzacoalcos, Mexico

**Final grade:** 9.5 / 10

## WORK EXPERIENCE

[ 01/02/2021 – 01/08/2021 ]

### Management assistant

**Solar4Eat**

**City:** Xochitepec

**Country:** Mexico

I took actively in the planning and delimitation of the company's objectives, in the development and evaluation of necessary strategies for the fulfillment of these, in the creation of alliances with different mexican producers and distributors, in the formulation of budgets and financial statements, in the direction and management of the subgroup I was responsible for, as well as in the whole production process of fruit dehydration with solar thermal energy.

## LANGUAGE SKILLS

**Mother tongue(s):** Spanish

**Other language(s):**

### English

**LISTENING C1 READING C1 WRITING C1**

**SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1**

### French

**LISTENING A1 READING A1 WRITING A1**

**SPOKEN PRODUCTION A1 SPOKEN INTERACTION A1**

## DIGITAL SKILLS

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### Microsoft Office

Microsoft Excel (Advanced) | Microsoft Word (Advanced) | Microsoft PowerPoint (Advanced)

### Programming

C++ (Advanced) | Mathematica (Beginner) | Visual Studio - Visual Basic (Advanced) | Python (Advanced) | MATLAB (Intermediate) | LaTeX (Advanced)

### Design Software

AutoCAD (Beginner) | SketchUp (Intermediate)

### Simulation Software

OpenFOAM (Beginner) | ASHES (Intermediate) | OpenStudio and EnergyPlus (Intermediate)

## ORGANISATIONAL SKILLS

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### Strategical and analytical thinking

I am a long-sighted strategic person as I create several plans by visualizing and analyzing different future scenarios considering the variables involved at a short, medium and long term, and I know to prioritize and organize tasks needed to achieve objectives effectively.

### Hardworking and productive

I know how to set goals and organize my responsibilities to meet them, and I have the discipline to do so with dedication and efficiency.

### Organized

I know how to organize activities in order to meet objectives in the most efficient way considering time, needs and the factors involved in achieving them.

## PROJECTS

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[ 28/08/2022 – 31/10/2022 ]

### Research stay at University of Reading (United Kingdom)

Developed the scientific paper "**Wind power estimation using numerical meteorological models: To correct or not to correct wind speed biases?**" with the grant *Becas UNAM-DGECI Iniciación a la Investigación 2022*. This project was carried out under the supervision of Dr. Oscar Martínez Alvarado and Dr. Osvaldo Rodríguez Hernández, and is very close to submission for consideration in a peer-reviewed science journal.

**Link:** <https://drive.google.com/drive/folders/111iOAYnNpgH0jQboczpfWBWlr7OPaOjd?usp=sharing>

[ 11/2021 ]

### Co-author of scientific paper for the National Congress of Solar Food Drying and Cooking (2021)

**"Análisis energético del secado solar de piña en la planta híbrida solar-gas para la deshidratación de alimentos en Xochitepec, Morelos."**

Authors: Ana Lilia César Munguía, Octavio García Valladares, Alfredo Domínguez Niño, Alejandra Maciel Tiburcio, Isaac Pilatowsky Figueroa, José Jassón Flores Prieto, José Rodolfo Pérez Espinosa.

**Link:** <https://drive.google.com/drive/folders/1vYba6gPNxfWPUssfWcDeKf2oCvokCusu?usp=sharing>

[ 05/03/2021 – 06/09/2021 ]

### Social Service at National Autonomous University of Mexico

Development and characterization of low temperature solar systems for heating of water and air for residential, industrial, commercial and solar dehydration.

**Link:** <https://drive.google.com/drive/folders/1ZmsFALsofiZqWvOiEx8OOCmGCdPFI5y9?usp=sharing>

## COMMUNICATION AND INTERPERSONAL SKILLS

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### **Assertive communication**

I know how to express my ideas, feelings and needs in a direct, polite, confident and honest way, while being empathetic and respectful of other people. I am able to say what I want to say, when it is time to say it, respecting my own needs and desires, as well as those of others.

### **Empathetic**

I have the ability to understand others by putting myself in the other's reality to understand their needs and feelings, actively listening to them with full attention, and without judgments or presuppositions.

### **Authenticity**

I present myself as I am, I am faithful to my ideals and principles and I act with conviction to them.

## INTERNATIONAL ACADEMIC EXCHANGE

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[ 16/08/2021 – 21/12/2021 ]

### **Norwegian University of Science and Technology**

Exchange semester in Norway with the scholarship *Becas UNAM-DGECI Movilidad semestral Otoño 2021*. Courses: Design of a Wind Turbine, Project Flexibility, Innovation by Design Thinking, Corporate Responsibility and Ethics.

**Link:** [https://drive.google.com/drive/folders/1DLc8j9P-wm\\_4jRBb48OFphDH\\_nEh6du-?usp=sharing](https://drive.google.com/drive/folders/1DLc8j9P-wm_4jRBb48OFphDH_nEh6du-?usp=sharing)

## MANAGEMENT AND LEADERSHIP SKILLS

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### **Leader and motivator**

I have initiative to take the lead and encourage people to achieve a goal as a team, making the most out of our different abilities, ideas and perspectives, while being optimistic, enthusiastic and empathetic, and willing to help everyone to develop their fullest potential.

### **Capacity for teamwork**

I know how to work along other team members effectively in the pursuit of a common goal, actively listening to every team member and communicating assertively to create strategies and to fulfill objectives.

### **Autodidact and innovator**

I always look for solutions when there is a problem or when I do not know something and I like to innovate and look for new ways of improving methods, processes and solutions.

## SOCIAL AND POLITICAL ACTIVITIES

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[ 27/06/2022 ]

### **Support for science outreach activity** Coatlán del Río, Morelos, México

Participated on the 6th meeting of Science and Literature to promote renewable energy education to the primary school "Ignacio Pastrana" of this rural area.

**Link:** <https://drive.google.com/drive/folders/1ObfVXrMmUpjrBKP20yE5cHDTKg5D5mYD?usp=sharing>

[ 18/07/2020 ] **Participation on the Go Solar Online Workshop of the Scout's Association.**

Mexico

Speaker of the webinar "What are Renewable Energies and how do they help us fight Climate Change?" as part of the webinar series of the Go Solar Online Workshop in its July - August 2020 edition.

**Link:** <https://drive.google.com/drive/folders/1CwrWXijJs9nOMpupsBz4Gi54lmOAIxy?usp=sharing>

## NETWORKS AND MEMBERSHIPS

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[ 07/2018 – 05/2022 ] **Certified Girl Guides leader** Cuernavaca, Morelos, México

Member of "Guías de México" since 4 years old and from 2018 I became a leader of girl guides group (ages from 9-12). As volunteer leader I ran up activities, events and projects that give girls the chance to discover their potential and learn new skills that set them up for life.

**Link:** [https://drive.google.com/drive/folders/1dXsE4uJtBMkw4cP\\_Gi\\_NQff5HeROPQI9?usp=sharing](https://drive.google.com/drive/folders/1dXsE4uJtBMkw4cP_Gi_NQff5HeROPQI9?usp=sharing)

## VOLUNTEERING

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[ 01/06/2017 – 01/09/2017 ] **Program Volunteer** World Association of Girl Guides and Girl Scouts' World Centre - Our Cabana

Planning, execution and evaluation of educational activities, leadership development and empowerment workshops. Direction of talks and workshops on gender equality and self-esteem. Execution of community service projects.

**Link:** [https://drive.google.com/drive/folders/1FqSV-kCvh\\_wxblotrOrSsiSP\\_3pNZMfb?usp=sharing](https://drive.google.com/drive/folders/1FqSV-kCvh_wxblotrOrSsiSP_3pNZMfb?usp=sharing)

## HONOURS AND AWARDS

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[ 10/01/2022 ] **Academic recognition Awarding institution:** National Autonomous University of Mexico

Academic recognition for having one of the three highest GPA during 2020 in the bachelor of Renewable Energies Engineering (Temixco, Mor.)

**Link:** [https://drive.google.com/file/d/1-uemMolHvW5eiiAW39v\\_bC2zbYk59tI0/view?usp=sharing](https://drive.google.com/file/d/1-uemMolHvW5eiiAW39v_bC2zbYk59tI0/view?usp=sharing)

[ 09/09/2021 ] **Academic recognition Awarding institution:** National Autonomous University of Mexico

Academic recognition for having one of the three highest GPA during 2019 in the bachelor of Renewable Energies Engineering (Temixco, Mor.)

**Link:** [https://drive.google.com/drive/folders/1apDT8\\_th5u6QH7LbRtu2QzLa7\\_8f-HIK?usp=sharing](https://drive.google.com/drive/folders/1apDT8_th5u6QH7LbRtu2QzLa7_8f-HIK?usp=sharing)

[ 03/2018 ] **Best score of the city - 'Gran Pez' Awarding institution:** High Performance Mathematics Center

Best score of the city at the IV Women's Math Olympiad (Coatzacoalcos, Ver.)

**Link:** [https://drive.google.com/drive/folders/1Md0Ltc-VinG\\_McQ\\_mkRngvDmdXBgdWqK?usp=sharing](https://drive.google.com/drive/folders/1Md0Ltc-VinG_McQ_mkRngvDmdXBgdWqK?usp=sharing)

[ 12/10/2017 ] **Academic recognition Awarding institution:** Monterrey's Institute of Technology and Higher Studies

Academic recognition for being an outstanding student in high school studies.

**Link:** <https://drive.google.com/drive/folders/1hepoV-M0kuIPS0Mbn0YEgg5A0-Zru33L?usp=sharing>

## CERTIFICATES

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### Professional certification

*Solar210X: Introduction to solar energy: The photovoltaic module.* Course of study offered by UPValenciaX, an e-learning initiative of Universidad Politécnica de Valencia through edX.

**Link:** <https://drive.google.com/drive/folders/1q1fsoycxdTRANvRtZ1k1Hx8SsjpL4m0g?usp=sharing>

## HOBBIES AND INTERESTS

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### Tennis

I have played tennis since 4 years old. I won 2012's first place on the state ranking in Veracruz, México.

**Link:** <https://drive.google.com/drive/folders/1oVB3Se0jjBXIUDwE-ESxqG-X1yGHe9vk?usp=sharing>

## RECOMMENDATIONS

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### University professor

**Name:** Mariano López de Haro

**Phone number:** (+52) 7772337368

**Email:** [malopez@unam.mx](mailto:malopez@unam.mx)

University professor of Integral Calculus and Vector Calculus.

### Leader of Wind Energy Group

**Name:** Osvaldo Rodríguez Hernández

**Phone number:** (+52) 5554570099

**Email:** [osroh@ier.unam.mx](mailto:osroh@ier.unam.mx)

Professor of Wind Energy course in university and leader of Wind Energy Group I was part of in the Institute of Renewable Energies (IER-UNAM).